

Claims

1. Combination comprising a container and an empty bag that can be unfolded from a flat, empty state into a filled final state;

5 wherein the container has a walled enclosure that defines a container chamber, which walled enclosure comprises a base and a peripheral wall that is upright in the height direction from the base;

wherein the bag has at least one opening for filling and/or emptying the bag;

wherein the foldable bag in the filled final state has dimensions that essentially correspond to those of the container chamber;

10 the bag is fixed to the container against the walled enclosure by a first fixing and a second fixing located above the first fixing viewed in the height direction;

wherein the first fixing is provided at the base and the second fixing is provided at the top of the peripheral wall such that, between the first and second fixing, the bag is in contact with the peripheral wall over essentially the entire height of the peripheral wall.

15 2. Combination according to Claim 1, wherein the first and/or second fixing encompass a said at least one opening.

20

3. Combination according to one of the preceding claims, wherein the bag is so arranged that during filling, with the container upright and from the flat, empty state, it unfolds from the first fixing along the base and from the base into the top of the container chamber.

25

4. Combination according to one of the preceding claims,
wherein the bag comprises a first, a second, a third and a fourth sheet for forming, respectively, a first, second, third and fourth bag wall;
wherein the first sheet is joined to the second sheet via the third and the fourth sheet;
30 wherein, in the flat empty state, the third and the fourth sheet are each folded along a fold line;
wherein, in the flat, empty state, the fold line of the third sheet and the fold line of the fourth sheet are between the first and the second sheet facing one another; and

wherein the first and second fixing and the at least one opening are provided on the first sheet.

5. Combination according to Claim 4, wherein the container chamber is essentially block-shaped or cylindrical.
6. Combination according to Claim 5,
wherein the first and second sheet each have two mutually parallel side edges running in the height direction;
10 wherein, on the one hand, the first sheet is joined together with the third and fourth sheet and, on the other hand, the second sheet is joined together with the third and fourth sheet at the tops and bottoms thereof along an oblique seal, viewed with respect to the side edges, such that in the completely filled state the seals essentially determine the diagonals of the bottom surface and the top surface of the bag.
- 15 7. Combination according to Claim 6,
wherein a top rib/axis runs between the outward-pointing ends of the top oblique seals of the first sheet;
wherein a bottom rib/axis runs between the outward-pointing ends of the bottom oblique seals of the first sheet;
20 wherein the first fixing is provided at the bottom rib/axis;
wherein the second fixing runs at the top rib/axis; and
wherein the at least one opening is provided at the bottom and/or top rib/axis.
- 25 8. Combination according to Claim 7,
wherein the distance from, on the one hand, a second fixing and/or from an at least one opening provided at the top rib/axis to, on the other hand, the top rib/axis is at most 25 % of the depth of the container chamber, viewed horizontally and transversely to the top rib/axis, wherein said distance is preferably at most 15 %, such as at most 10 %, of said depth.
- 30 9. Combination according to one of Claims Claim 7 – 8,
wherein the distance from, on the one hand, the first fixing and/or from an at least

one opening provided at the bottom rib/axis to, on the other hand, the bottom rib/axis is at most 25 % of the depth of the container chamber, viewed horizontally and transversely to the bottom rib/axis, wherein said distance is preferably at most 15 %, such as at most 10 %, of said depth.

5

10. Combination according to one of the preceding claims, wherein the walled enclosure of the container has a ceiling that delimits the container chamber from above and wherein a portion of the bag facing upwards in the filled final state is provided with a said at least one opening, which is preferably provided at the second fixing.

10

11. Combination according to one of the preceding claims, wherein a said at least one opening is provided at the first fixing.

15

12. Combination according to one of the preceding claims, wherein the bag is a bag according to one of Claims 16 - 22.

20

13. Method for the use of a combination according to one of the preceding claims, wherein the flat empty bag is first fixed by the first and second fixing against the walled enclosure of the container chamber and only then is the bag filled with a filling via a said at least one opening.

25

14. Method according to Claim 13, wherein the bag is filled via a said at least one opening that is provided in the top of the bag, and specifically preferably a said at least one opening that is provided at the second fixing.

25

15. Method for the use of a combination according to one of Claims 1 - 12, wherein the bag is emptied, or at least the final portion of the bag is emptied, via a said at least one opening provided at the first fixing.

30

16. Foldable bag (1) that can be unfolded from an essentially flat initial state into an unfolded final state, provided with at least a first, a second and a third sheet (10, 20, 30) for forming, respectively, a first, a second and a third wall of the foldable bag (1), wherein the first sheet (10) is joined to the second sheet (20) via the third sheet (30),

which third sheet (30) in the initial state is folded along a fold line, wherein the fold line of the third sheet in the initial state is between the first and the second sheet (10, 20) and

wherein the foldable bag (1) has at least one opening (15) for filling and/or emptying the foldable bag (1),

characterised

in that the opening (15) is made in the first sheet (10) and

in that the fold line of the third sheet (30) in the initial state extends underneath the opening (15) to form a channel (17) between the first and second sheet (10, 20) past the opening (15).

10 17. Foldable bag (1) according to Claim 16, characterised in that the foldable bag (1) furthermore contains a fourth sheet (40) for forming a fourth wall of the foldable bag (1),

15 wherein the first sheet (10) is joined to the second sheet (20) via the fourth sheet (40), which fourth sheet (40) in the initial state is folded along a fold line, wherein the fold line of the fourth sheet in the initial state is between the first and the second sheet (10, 20), and

20 wherein the fold line of the fourth sheet (40) in the initial state extends underneath the opening (15) to form a channel (17) between the first and second sheet (10, 20) past the opening (15).

25 18. Foldable bag (1) according to Claim 16 or 17, characterised in that the opening (15) has been made close to the longitudinal centre line of the first sheet (10), wherein the fold lines in the third and optionally fourth sheet (30, 40) in the initial state extend essentially parallel to and close to said longitudinal centre line.

30 19. Foldable bag (1) according to Claim 17 or 18, characterised in that the distance between the fold line in, respectively, the third and fourth sheet (30, 40) in the initial state is less than 90 %, preferably less than 80 %, of the diameter of the opening (15).

20. Foldable bag (1) according to one of Claims 16 - 19, wherein, viewed transversely to

the fold line of the third sheet, the greatest distance to the periphery of the opening is at least 5 %, preferably at least 15 %, such as at least 20 %, of the maximum passage width of the opening, viewed transversely to the fold line of the third sheet.

5 21. Foldable bag (1) according to one of Claims 17 - 20, wherein, viewed transversely to the fold line of the fourth sheet, the greatest distance to the periphery of the opening is at least 5 %, preferably at least 15 %, such as at least 20 %, of the maximum passage width of the opening, viewed transversely to the fold line of the fourth sheet.

10 22. Foldable bag (1) according to one of the preceding Claims 16 - 21, characterised in that the foldable bag (1) is constructed as a gusset bag, wherein the first and the second sheet (10, 20) are essentially rectangular, each with two end edges (11, 13; 21. 23) and two side edges (12, 14; 22, 24) and wherein the first and the second sheet (10) are each joined to the third and the fourth (30, 40) sheet via seals (61) that run obliquely with respect to the side edges (12, 14; 22, 24) of the first and the second sheet (10, 20), respectively, wherein the seals (61) for joining the sheets extend from the end edges (11, 13; 21. 23) to the side edges (12, 14; 22, 24), and in that at least the first opening (15) is made in the first sheet (10), at a join line between the points of contact of the oblique seals (61) with the side edges (12, 14; 22, 24) of the first sheet (10), wherein, preferably, a said at least one opening has been provided at both said join lines.

15

20